Maintenance Resets in HP LaserJets

Laser printers are remarkably durable. With proper care and maintenance, most of them will continue to work for many years. But there are parts that require periodic replacement. Most obvious of these is the toner cartridge, but this is considered a consumable item (like paper) rather than a part, and it is usually replaced by the end user. Parts that need to be replaced by a technician are considered maintenance items, and these are usually conveniently packaged by the printer manufacturer, or by printer service companies like Liberty Parts Team, as a maintenance kit. Typically, kits include the fuser, transfer roller, and the major paper-moving rollers.

In most printers, maintenance items are rated to last for a certain number of printed pages, after which replacement is recommended. This maintenance interval differs from one printer model to the next. For any given printer, you can usually find the nominal maintenance interval listed in the service manual. However, for early models like the HP LaserJet Series II and III, or low-level models without LED/LCD displays, like the 5L and 6L, the service manual is the only place you will find this information. On these models, it is up to the end user or technician to keep track of page counts and usage, and determine when it is time for a maintenance kit, because the printer will give no indication.

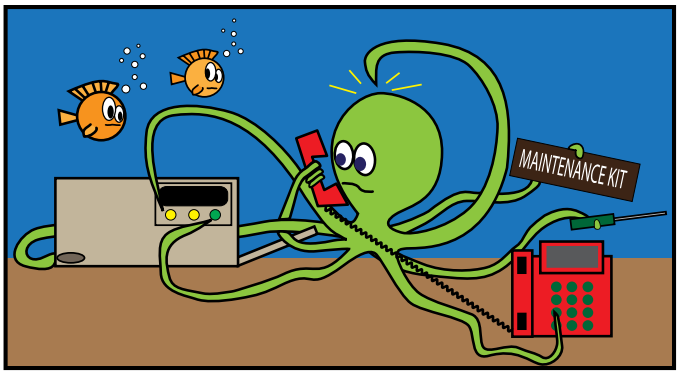
On later printer models, the maintenance interval is programmed into the printer, and when it has printed the rated number of pages, a message will appear on the display informing you that maintenance is required. In a few rare cases, the printer will automatically reset itself when the maintenance item is replaced, but most of the time, you will have to perform a procedure to reset the maintenance count and clear the message. Specific procedures vary on different printer models, and remembering them all is difficult. In fact, one of the most common tech support calls is "How do I reset the maintenance count on my printer?" This article will attempt to answer that question as comprehensively as possible, with specific procedures for most common models of HP laser printers.

HP: Early Monochrome Printers

IIISi/4Si/5Si: Of the first generation of HP monochrome laser printers (those with Roman numeral or single-digit model numbers), these are the only ones that had maintenance counts or maintenance resets. In the ideal case, where you wait until the printer's display indicates "Perform User Maintenance," the reset procedure is simple, and identical for all three printer models: go into the Configuration Menu, find the item "Service Message = On*," use the "+" key to change it to "Off," and then press "Enter" or "Select" to put an asterisk after it. This turns the message off and resets the maintenance count.

However, if the maintenance kit is installed early (before the "User Maintenance" message appears), there will be nothing in the Configuration Menu to turn off. You will have to go into service mode (see sidebar), and then into the service menu, and directly manipulate the maintenance count. Do not confuse this with the page count. In most cases (there is one exception, which will be discussed below), it is neither necessary nor desirable to change the page count. Change the maintenance count only. Details vary, depending on the printer model:

IIISi: This is the simplest of the three – just set the maintenance count to zero (using the "+/-" key), press "Enter" to save the setting, and then press "On Line" or "Continue" to exit service mode.



4Si: This is the most complicated of the three. To avoid confusion, we will simply give the procedure without attempting to explain the reasoning behind it. First, print a self test from service mode. This will be similar to the regular self test, except that it will show the service menu in addition to the other menus. In the service menu, you will see two counts: "Pages" (the printer's total page count) and "Maint" (the maintenance count). "Maint" will always be higher than "Pages" (except in one case – see Note below). Subtract "Pages" from "Maint" and note the result. Now go into the service menu and find "Maint." Note that this is not the same "Maint" count that appeared on the self test print – in fact, in this menu it will always show as zero. Using the "+/-" key, adjust it to be equal to or greater than the result of the subtraction performed earlier. Press "Enter" to save this adjustment, and then "On Line" or "Continue" to exit service mode. Now print a regular self test (or any other kind of print job). Immediately after it prints, the "User Maintenance" message should appear on the display. Now you can use the normal procedure (described earlier) to turn off the message and reset the count.

Note: On some older 4Si printers with page counts of 1.3 million or greater, these procedures will not work – even after you turn off the message in the Configuration Menu, it will return as soon as you print anything. Again, we will not attempt to explain this – we will simply give the solution, which is to go into service mode and reduce the page count to something well below 1.3 million (this is the one exception to the advice given earlier about not changing page counts). Once you have done that, print the service mode self test as described above. In this case only, "Maint" may or may not be higher than "Pages." If "Pages" is higher, just go into the Configuration Menu and turn off the message as described earlier. If "Maint" is higher, follow the procedure in the previous paragraph – note that you may have to do it more than once if the difference between "Maint" and "Pages" is greater than 200,000.

5Si: This is similar to the IIISi, but with one additional step. Set the maintenance count to zero (be sure to "Select" each digit), then adjust it to be equal to or greater than the result of the subtraction performed earlier. Press "Enter" to save this adjustment, and then "On Line" or "Continue" to exit service mode. Now print a regular self test (or any other kind of print job). Immediately after it prints, the "User Maintenance" message should appear on the display. Now you can use the normal procedure (described earlier) to turn off the message and reset the count.

Some Early HP LaserJet Control Panels Left: 4Si. Right: 5Si

Note: On some older 4Si printers with page counts of 1.3 million or greater, these procedures will not work – even after you turn off the message in the Configuration Menu, it will return as soon as you print anything. Again, we will not attempt to explain this – we will simply give the solution, which is to go into service mode and reduce the page count to something well below 1.3 million (this is the one exception to the advice given earlier about not changing page counts). Once you have done that, print the service mode self test as described above. In this case only, "Maint" may or may not be higher than "Pages." If "Pages" is higher, just go into the Configuration Menu and turn off the message as described earlier. If "Maint" is higher, follow the procedure in the previous paragraph – note that you may have to do it more than once if the difference between "Maint" and "Pages" is greater than 200,000.

5Si: This is similar to the IIISi, but with one additional step. Set the maintenance count to zero (be sure to "Select" each digit), then press "Menus" followed by "On Line" to exit service mode. Now print a self test (or any other kind of print job). Immediately after it prints, the "User Maintenance" message should appear on the display. Now you can use the normal procedure (described earlier) to turn off the message and reset the count.

HP: Later Monochrome Printers

All HP monochrome laser printers since the 5Si have had 4-digit model numbers (e.g., 2100, 4000, 8150, etc.). These printers have three general types of control panels, each with its own characteristic methods of performing resets and other procedures:

(1) No LED/LCD display, just buttons and lights (none of these models have maintenance counts or resets, so we will not discuss them here);

(2) LCD display with several lights and buttons, including a green "Go" key and an orange "Job Cancel" key;

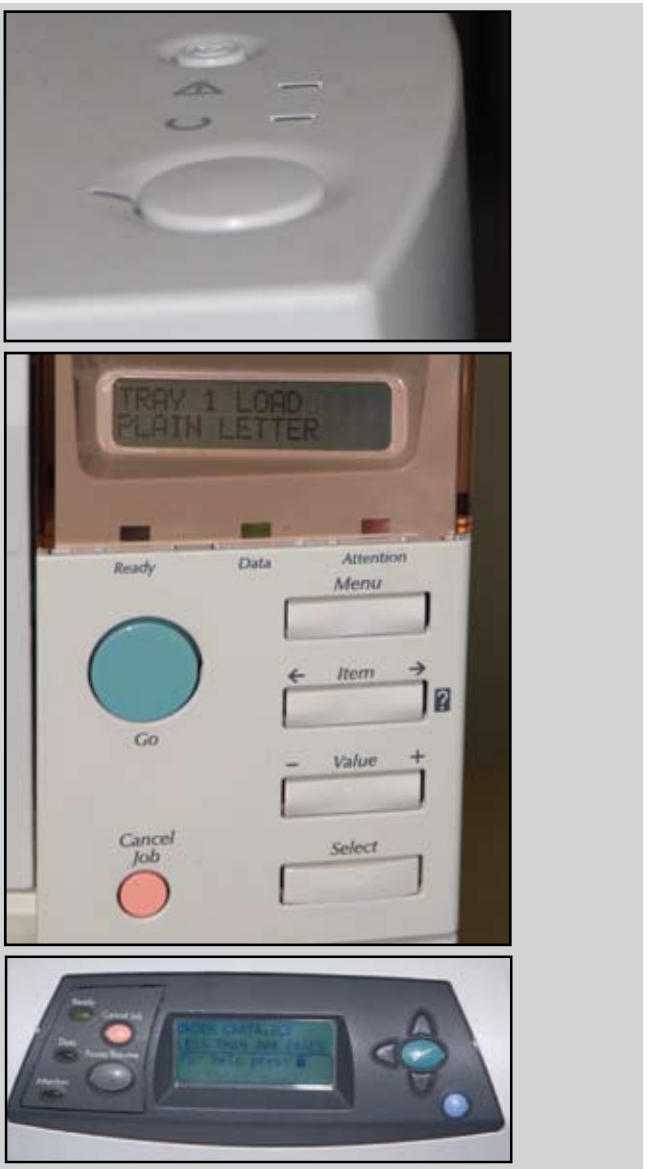
(3) LCD display with several lights and buttons, including a green key with a "√" symbol on it (we will call this the "Select" key, since that is its function).

Many of these printers have a service message or maintenance message that can be turned off in the menus, but this is not a reliable procedure on any printer after the 5Si. It usually does not reset the maintenance count, and only turns the message off temporarily. This can be useful if you do not have a kit handy and just want to turn off the message until you can get one, but if you are installing a kit and want to do a full reset, do not use this method. There are better ways, which will be discussed below. Whichever method you use, we recommend that you print a configuration page and check the "Pages Since Last Maintenance." If the reset was successful, this should go to zero.

We will discuss the simple methods first, the ones that do not involve going into service mode. There are two basic methods, corresponding to control panel types (2) and (3) as described above:

Control panel type (2): Start with the printer powered off. Press and hold the left ("-") side of both the "Item" and "Value" keys while powering on, until the display reads "Reset Maintenance Count" (on some models, it will just read "Count"), then release the keys.

Control panel type (3): There are two different ways to start this procedure, depending on printer model: (a) Press and hold the "Select" key while powering on (this tends to be used on older models like the 4200 and 4300); or (b) Power on first, watch the display, and when it starts the memory count, then press and hold the "Select" key (this tends to be used on newer models like the 4250 and 4350). If in doubt, try it both ways – one or the other will work on any monochrome printer with this type of control panel. In either case, continue holding the "Select" key until all control panel lights blink once and then come back on and stay on (this should take about 10 seconds), and then release the key. The display should come up reading "Select Language." Now use the up or down arrow key to scroll the display until it reads "New Maintenance Kit," and then press the "Select" key.



Control Panel Types. Top: LaserJet 2100, Type 1. Middle: CLJ 4500, Type 2. Bottom: LJ 4200, Type 3.

In theory, these procedures should both clear the maintenance message (if it has appeared on the display) and reset the maintenance count (whether or not the message has appeared yet). However, we have seen cases where these procedures do not work, especially when done prematurely (before the maintenance message appears). If in doubt, print the configuration page and check "Pages Since Last Maintenance." If this has not gone to zero, you will have to go into service mode (see sidebar) and directly reset the maintenance count. Note that some printers will show both "Maintenance Count" and "Maintenance Interval." In general, you do not want to change the maintenance interval, and you should definitely never set it to zero – in some cases, this can cause a permanent 49 error and necessitate replacement of the formatter board.

To set the maintenance count to zero, note that on most printers the count will appear with a cursor under one digit. Use the "Value" ("+/-") or arrow keys to change the underlined digit to zero, then "Enter" or "Select"

to set that digit and move to the next one. Make sure to select each digit (even the ones that are already zero) – some printers will not actually reset the count until each digit has been selected. If performed correctly, this procedure always works – it will either reset the count directly, or it will force the maintenance message to appear, in which case you can use the simpler methods described earlier.

HP: Color Printers

Color printers are inherently more complex than monochrome printers, and thus have more items that require regular replacement – and different maintenance intervals for the different items. So they generally have multiple kits and resets. On the original Color LaserJet and Color LaserJet 5, most of the maintenance items had "first-time-use" fuses, so that the printer would recognize new items and automatically reset the counters. On newer models, only toner cartridges and drums work this way (although the fuses have given way to memory chips, and you often have to cycle the power before the printer will read the chip and recognize the new cartridge or drum). For other maintenance items (typically a fuser kit and a transfer kit), you will have to do something to reset the maintenance count(s).

As with the monochrome printers, in most cases there is a simple way. Details vary on different printer models, but we can split the procedures into two groups based on control panel type, just as we did earlier for monochrome printers – in fact, the control panels are the same types as described earlier:

Control panel type (2): These printers have only one level of menus, and you can scroll through them by repeatedly pressing either side of the "Menu" key. Look for the "Resets" menu, and then use the "Item" key to scroll through this menu. Ideally, you should find fuser and transfer resets, and all you need to do is select the appropriate one. However, on some printers, the reset(s) will not show in the menu if you install the kit(s) early (i.e., before the maintenance message appears on the display). In this case, you will have to go into service mode.

Control panel type (3): Most of these printers have hierarchical menus – i.e., the menus are arranged in a multi-level tree structure, so finding the resets is a bit trickier. The best way to navigate the menus is to go into the Information Menu (this is always at the top level) and print a menu map, which will show you the entire tree. But in most cases, you can find the resets by selecting "Configure Device" at the top level of the tree. Under that, go to "Resets", and then "Reset Supplies." Again, there will be separate resets for fuser and transfer kits. Just choose the appropriate one.

If the reset as described above does not take, or if you can not find it in the menus, you still have the option of going into service mode (see sidebar) and directly setting the count(s) to zero, just as in the monochrome models. The only difference is that there will be separate counts for fuser and transfer kits, and in a few cases, the count will appear as "remaining life" – in this case, set it to 100 (for 100%) rather than zero. If it is expressed as a count, set it to zero.

—Dennis Kosterman
LPT Tech Support Manager

HP Service PIN Codes

Printer Model	PIN Code
LJ 2300	11230002
LJ 2410	10241004
LJ 2420	10242004
LJ 2430	10243004
CLJ 3000	11300005
CLJ 3500	10350003
CLJ 3550	10350003
CLJ 3600	11360005
CLJ 3700	10370003
CLJ 3800	11380005
LJ 4100 MFP	04410002
LJ 4101 MFP	04410002
LJ 4200	11420002
LJ 4240	04424005
LJ 4250	09425004
LJ 4300	11430002
LJ 4345 MFP	11434504
LJ 4350	09435004
CLJ 4600	04460002
CLJ 4610	05465004
CLJ 4650	05465004
CLJ 4700	09470005
CLJ 4730 MFP	09473005
LJ 5200	05520006
CLJ 5500	04550002
CLJ 5550	09555004
LJ 9000	00900001
LJ 9000 MFP	00900001
LJ 9050	09905004
CLJ 9500	04950003